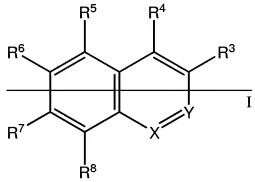
LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) A compound selected from the group consisting of 8-quinolineboronic acid and 2-((methylamino)methyl)quinoline-8-ylboronic acid. ~~having the formula I~~



~~wherein X is O, S, CR^1, NR^2, or N;~~

~~wherein when Y is present, Y is CR^9 or N and X is CR^1 or N;~~

~~wherein when Y is not present, X is O, S, $C(R^1)_2$, or NR^2;~~

~~wherein R^1-R^9 are, independently, hydrogen, a branched or straight chain alkyl group, a hydroxyl group, an alkoxy group, a COOH group, a $B(OH)_2$ group, an alkyl substituted an amino group, a hydroxyalkyl group, an alkoxyalkyl group, an aminoalkyl group, a thiol group, a thiol ether group, an amide group, an aldehyde group, a ketone group, an ester, an arakyl group, an aryl group, a nitrile group, a nitro, a halogen, a sulfo-oxo group, a sulfo-amide group, a phosphonate group, or a phosphate;~~

~~wherein the compound having the formula I has at least one $B(OH)_2$ group directly or indirectly bonded to the ring;~~

~~or the salt thereof,~~

~~wherein the compound is not 1-naphthalenyl boronic acid; 2-naphthalenyl boronic acid; 6-dimethylamino-2-naphthalenyl boronic acid boronic acid; 6-amino-2-naphthalenyl~~

~~boronic acid boronic acid; 8-quinolineboronic acid; benzo[b]thiophene-2-boronic acid; 2-(4-phenylboronic acid) quinoline-4-carboxylic acid; N-Boc-4-amino-1-naphthalene boronic acid; 4-cyano-1-naphthalenyl boronic acid; 6-((diphenylamino)-2-naphthalenyl) boronic acid; 5-bis-(phenylmethoxy)(ethyl)amino-2-naphthalenyl-boronic acid; 6-bis-(phenylmethoxy)(ethyl)amino-2-naphthalenyl-boronic acid; 6-((naphthalenylphenylamino)-2-naphthalenyl) boronic acid; 6-((1,1'-biphenyl-4-ylphenylamino)-2-naphthalenyl) boronic acid; 6-(2-naphthalenylphenylamino)-2-naphthalenyl)-boronic acid; phenylmether ester of 4-borono-1-naphthalenyl carbamic acid; 6-cyano-1-naphthalenyl boronic acid; 4-(2,2-dimethyl-1-oxopropyl)amino-1-naphthalenyl boronic acid; 1-(diethylamino carbonyl)-2-naphthalenyl boronic acid; 4-(cyclopropylmethyl)propylamino-1-naphthalenyl boronic acid; 1-bis-(1-methylethyl)amino carbonyl)-2-naphthalenyl boronic acid; and 3-bis-(1-methylethyl)amino carbonyl)-4-methoxy-2-naphthalenyl boronic acid.~~

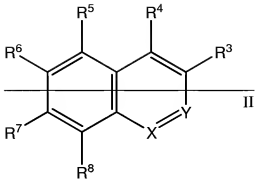
Claims 2-23 (Cancelled)

24. (Previously presented) The compound of claim 1, wherein the compound has a solubility of greater than 1 μM in water.

25. (Previously presented) The compound of claim 1, wherein the compound is the pharmaceutically acceptable salt or ester thereof.

26. (Previously presented) A pharmaceutical composition comprising the compound of claim 1 and a pharmaceutically acceptable carrier.

27. (Currently amended) A modified-macromolecule comprising a macromolecule having at least one compound of claim 1, ~~having the formula II incorporated therein~~



~~wherein X is O, S, CR^1, NR^3, or N;~~

~~wherein when Y is present, Y is CR^9 or N and X is CR^1 or N;~~

~~wherein when Y is not present, X is O, S, $C(R^1)_2$, or NR^3;~~

~~wherein R^1-R^9 are, independently, hydrogen, a branched or straight chain alkyl group, a hydroxyl group, an alkoxy group, a COOH group, a $B(OH)_2$ group, an alkyl substituted amino group, an amino group, a hydroxyalkyl group, an alkoxyalkyl group, an aminoalkyl group, a thiol group, a thiol ether group, an amide group, an aldehyde group, a ketone group, an ester, an arakyl group, an aryl group, a nitrile group, a nitro, a halogen, a sulfo-oxo group, a sulfo-amide group, a phosphonate group, or a phosphate;~~

~~wherein the compound having the formula II has at least one $B(OH)_2$ group directly or indirectly bonded to the ring;~~

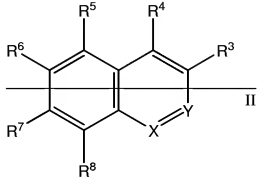
~~or the salt thereof.~~

28. (Original) The modified-macromolecule of claim 26, wherein the macromolecule comprises an oligonucleotide, a nucleic acid or a metabolically stabilized analogue thereof, a polypeptide, a lipid, a dendrimer, a polymer, a glycoprotein, lipopolysaccharide, or a pharmaceutically-acceptable compound.

Claims 29-63 (Cancelled)

64. (Currently amended) A method for detecting an analyte, comprising

~~(a)~~ contacting the analyte with [[a]] the compound of claim 1 ~~having the formula II~~ to produce a tagged analyte; and



~~wherein X is O, S, CR^1, NR^3, or N;~~

~~wherein when Y is present, Y is CR^9 or N and X is CR^1 or N;~~

~~wherein when Y is not present, X is O, S, $C(R^1)_2$, or NR^3;~~

~~wherein R^1-R^9 are, independently, hydrogen, a branched or straight chain alkyl group, a hydroxyl group, an alkoxy group, a COOH group, a $B(OH)_2$ group, an alkyl substituted amino group, an amino group, a hydroxyalkyl group, an alkoxyalkyl group, an aminoalkyl group, a thiol group, a thiol ether group, an amide group, an aldehyde group, a ketone group, an ester, an arakyl group, an aryl group, a nitrile group, a nitro, a halogen, a sulfo-oxo group, a sulfo-amide group, a phosphonate group, or a phosphate;~~

~~wherein the compound having the formula II has at least one $B(OH)_2$ group directly or indirectly bonded to the ring;~~

~~or the salt thereof; and~~

(b) detecting the fluorescent emission produced from the tagged analyte.

65. (Previously presented) A method for detecting an analyte, comprising

(a) contacting the analyte with a modified-macromolecule of claim 27 to produce a tagged analyte; and

(b) detecting the fluorescent emission produced from the tagged analyte.

66. (Previously presented) The method of claim 64, wherein the analyte comprises a natural or synthetic oligonucleotide, a natural or modified/blocked nucleotide/nucleoside, a nucleic acid (DNA) or (RNA), a peptide comprising natural or modified/blocked amino acid, an antibody, a parasite, a hapten, a biological ligand, a protein membrane, a lipid membrane, a small pharmaceutical molecule, a virus, a bacterium, or a cell.

67. (Previously presented) The method of claim 64, wherein the analyte is a carbohydrate.

68. (Original) The method of claim 67, wherein the carbohydrate is fructose, galactose, glucose, mannose, arabinose, sorbitol, tagatose, lactose, fucose, sialyl Lewis X, sialyl Lewis a, Lewis Y, Lewis X, blood group antigens, or an oligosaccharide that is part of a glycoprotein, a glycolipid, a lipopolysaccharide, a stage specific antigen, or a cancer carbohydrate-containing biomarker.

69. (Previously presented) The method of claim 64, wherein the analyte is detected *in vivo*.

70. (Previously presented) The method of claim 64, wherein the analyte is detected *in vitro*.

71. (Previously presented) The method of claim 64, wherein the analyte is blood sugar from a blood sample of a subject.

72. (Previously presented) The method of claim 64, wherein the analyte is a glycoprotein.

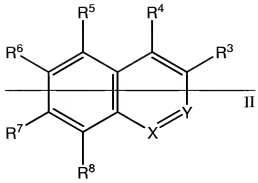
73. (Original) The method of claim 72, wherein the glycoprotein is immobilized on a gel.

74. (Previously presented) The method of claim 64, wherein the analyte is a lipposaccharide produced by bacteria.

Claims 75-109 (Cancelled)

110. (Original) An article comprising the modified macromolecule of claim 26.

111. (Currently amended) An article comprising [[the]] at least one compound of claim 1. ~~having the formula II~~



~~wherein X is O, S, CR^1, NR^3, or N;~~

~~wherein when Y is present, Y is CR^9 or N and X is CR^1 or N;~~

~~wherein when Y is not present, X is O, S, $C(R^1)_2$, or NR^3;~~

~~wherein R^1-R^9 are, independently, hydrogen, a branched or straight chain alkyl group, a hydroxyl group, an alkoxy group, a COOH group, a $B(OH)_2$ group, an alkyl substituted amino group, an amino group, a hydroxyalkyl group, an alkoxyalkyl group, an aminoalkyl group, a thiol group, a thiol ether group, an amide group, an aldehyde group, a ketone group, an ester, an arakyl group, an aryl group, a nitrile group, a nitro, a halogen, a sulfo-oxo group, a sulfo-amide group, a phosphonate group, or a phosphate;~~

~~wherein the compound having the formula II has at least one $B(OH)_2$ group directly or indirectly bonded to the ring;~~

~~or the salt thereof.~~

112. (Previously presented) The article of claim 110, wherein the article comprises a sensor chip or microplate.